



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,821	01/04/2002	Daniel P. Sutula JR.		9519

7590

01/20/2006

DANIEL P. SUTULA JR.
11 REVERE DRIVE
BRISTOL, CT 06010

EXAMINER

KASENGE, CHARLES R

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,821	SUTULA, DANIEL P.	
	Examiner	Art Unit	
	Charles R. Kasenge	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, filed 11/4/05, with respect to the rejection(s) of the claim(s) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hull U.S. Patent 6,027,324.

Claim Objections

2. Claim 18 is objected to because of the following informalities: In step 2, "parameter values" should be "parametric values". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claims 1 and 18, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-9, 14, 15, 17, and 18 are rejected under 35 U.S.C. 102(e) as being rejected by Hull U.S. Patent 6,027,324. Referring to claims 1 and 18, Hull discloses an apparatus and method enabling the precise creation, fitting, and reproduction of objects comprising the steps of:

1) defining a single 2-dimensional profile representation of an object (col. 5, lines 8-13 and col. 12, lines 11-17);

2) determining by measurement and defining a finite number of parametric values, such as angular and/or linear dimensions, sufficient to characterize how the object changes in cross-section in 3-dimensional space with respect to the 2-dimensional profile of step 1 (col. 5, lines 8-13 and col. 12, lines 11-17);

3) converting the profile and parametric values into an electronic format suitable for input to computer aided design and manufacturing (CAD/CAM) programs (col. 4, lines 57-67);

4) creating a virtual CAD model from the profile and parametric values (col. 12, lines 11-17);

5) calculating Numerical Control (NC) motion commands from the CAD model using CAM technology (col. 4, lines 57-67);

6) processing an object using Computer Numerical Controlled (CNC) machine (col. 4, lines 57-67)

7) Transmitting data throughout the process, enabling these steps to be conducted at any combination of geographic locations (col. 4, lines 57-67).

Referring to claims 2, 3, and 7, Hull discloses the method of claim 1, wherein step 1 comprises a tracing technique and a digitizing device to define the 2-dimensional profile (col. 8, lines 4-10). Hull discloses the method of claim 1, wherein step 2 is facilitated by means of printed measuring utensils (col. 6, lines 9-21).

Referring to claims 4-6, 8, 9, and 14, Hull discloses the method of claim 1, wherein step 1 comprises an optical scanning process and exposure to reactive chemical media, to define the 2-dimensional profiles (col. 8, lines 4-10). Hull discloses exposure to reactive chemical media is inherent to the scanning process. Hull discloses the method of claim 1, wherein step 1 and step 2 comprise a digitizing device to define the 2-dimensional profile and 3-dimensional parameters (col. 8, lines 4-10). Hull discloses the method of claim 1, wherein step 1 and step 2 are facilitated by means of integrated instruction and data acquisition form (col. 4, lines 57-67). Hull discloses them method of claim 1, wherein step 3 comprises optical scanning technology (col. 8, lines 4-10). Hull discloses the method of claim 1 wherein step 6 comprises a CNC controlled Rapid Prototyping machine capable of directly producing a part (col. 4, lines 37-41).

Referring to claims 15 and 17, Hull discloses the method of claim 1, wherein step 7 comprises data transmitted electronically (col. 4, lines 57-67). Hull discloses the method of claim 1 wherein any combination of steps 1-7 may be combined consolidated and/or automated (col. 4,

Art Unit: 2125

lines 57-67).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hull as applied to the claims above, and further in view of Kinzie U.S. Patent 5,997,681. Hull discloses using CNC cutting tools, but doesn't expressly disclose specific CNC tools. Kinzie discloses the method of claim 1 wherein step 6 comprises a CNC controlled machine with a rotating tool (col. 8, lines 57-64), a cutting jet, a cutting wire, and a cutting laser (col. 10, lines 50-63). The Office interprets data transmission over the Internet to be common and obvious form of electronic data transmission.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the various CNC cutting tools used by Kinzie. One of ordinary skill in the art would have been motivated to do this since the tools are commonly used to fabricate CAD models (col. 10, lines 50-63).

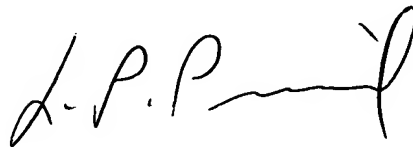
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles R Kasenge whose telephone number is 571 272-3743. The examiner can normally be reached on Monday through Friday, 8:30 - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CK
January 18, 2006



LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100